

REMARKS

The present application has been considered in view of the Final Office Action that was mailed on February 3, 2010. Claims 5-9, 11, 13, 17, 20, and 32-41 are currently pending. By the present Amendment, Applicants have amended the written description, the drawings, and the claims. Specifically, Applicants have amended claims 5, 32, and 36, and added new claims 37-41 for consideration. Applicants respectfully submit that these amendments do not introduce any new matter, and are fully supported by the specification. In view of the following remarks and arguments, Applicants respectfully submit that claims 5-9, 11, 13, 17, 20, and 32-41 are allowable over the references of record, and accordingly, respectfully request allowance of these claims.

In the Final Office Action, the drawings were objected to under 37 C.F.R. 1.83(a) for failing to illustrate every feature of the invention specified in the claims. Specifically, it was argued that "the annular segment (claims 33 & 36) must be shown." (Office Action, page 3).

By the present Amendment, Applicants have amended FIG. 11 to more specifically identify the claimed "annular segment." In view of this amendment, Applicants respectfully submit that the drawings comply fully with the requirements of 37 C.F.R. 1.83(a), and accordingly, respectfully request withdrawal of the objection to the drawings.

Claim 36 was rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out, and distinctly claim, the subject matter which Applicants regard as the invention. Specifically, it was argued that there is insufficient antecedent basis for recitation of the term "the longitudinal midpoint" in claim 36.

By the present Amendment, Applicants have amended claim 36 to recite "wherein the annular segment is disposed adjacent a longitudinal midpoint of the sealing member," (emphasis

added), thus obviating the need for antecedent basis, and overcoming the rejection. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 36 under 35 U.S.C. §112, second paragraph.

Claims 33, 35, and 36 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,634,937 to Mollenauer, *et al.* (hereinafter "Mollenauer") in view of Stablein (DE 37 37 121 A1) (hereinafter "Stablein"). Applicants respectfully submit, however, that the combination of Mollenauer and Stablein fails to render the subject matter of claims 33, 35, and 36 obvious.

As a condition for patentability, 35 U.S.C. §103(a) indicates that "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art," then the subject matter is not patentable. (Emphasis added).

Independent claim 33 recites "[a] cannula assembly for use in a surgical procedure" that includes, *inter alia*, a "sealing member having a general hourglass shaped segment, and an annular segment projecting radially inwardly from the hourglass segment."

Mollenauer relates to "the field of surgical endoscopy, specifically to improvements in skin seals and cannulas." (Col. 1, lines 5-6). In one embodiment of the disclosure, Mollenauer describes a threaded skin seal 10 with an inner bore 14, and a balloon membrane 20 with a generally conical or frustum shape matching the inner bore 14. (*See* col. 5, lines 45-49; *see* col. 6, lines 9-10; FIGS. 5, 6 below).

Fig. 5.

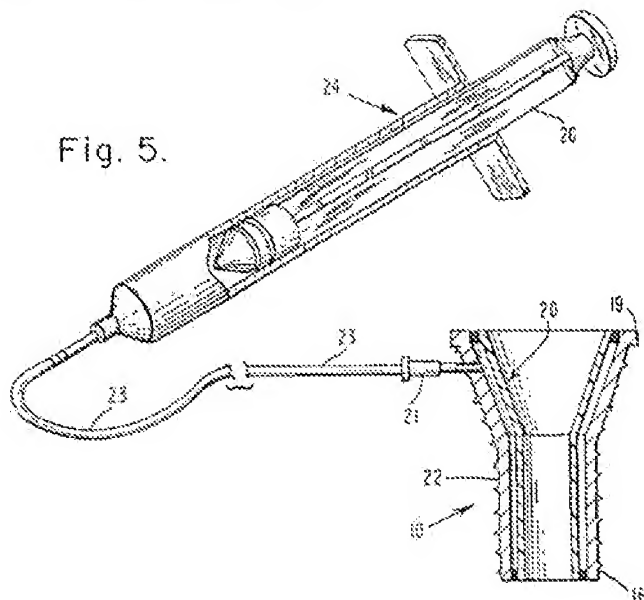
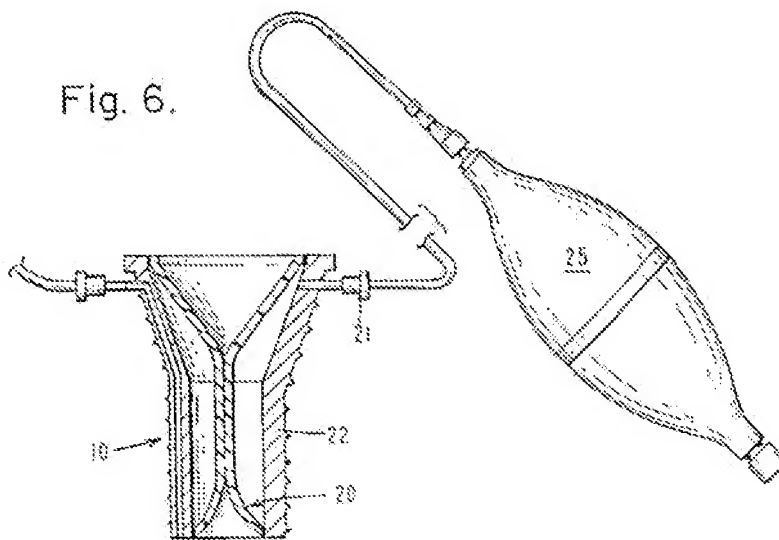


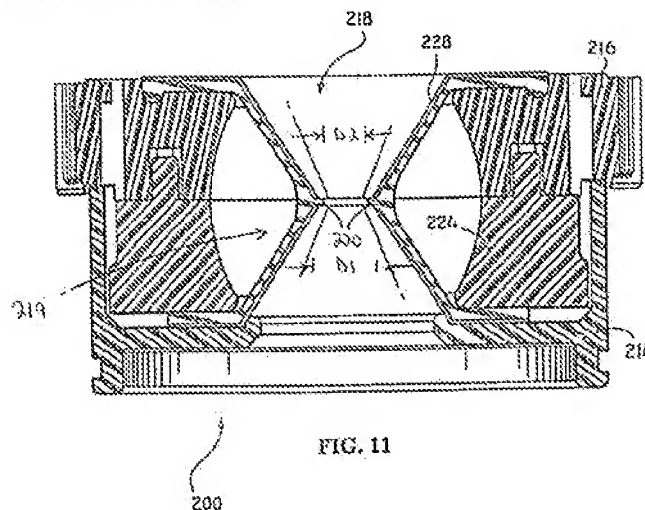
Fig. 6.



In the Final Office Action, Mollenauer's balloon membrane 20 was characterized as the "sealing member" recited in the claims, and it was asserted that "Figure 6 illustrates the sealing member (20) having a general hourglass shaped segment," and that "Figures 5 & 6 [sic] illustrates [sic] the sealing member (20) having an annular segment and the annular segment defining an opening." (Final Office Action, page 5). It was acknowledged that Mollenauer fails to disclose the "fabric" associated with the "sealing member" recited in the claims, but Stablein was relied upon for disclosure of this concept. (See Final Office Action, page 5).

Applicants respectfully disagree with the interpretation of Mollenauer set forth in the Final Office Action. As can be appreciated through reference to FIGS. 5 and 6 above, Mollenauer's seal member 20 includes a proximal, tapered portion, and a distal portion that extends linearly from the proximal portion. Both prior to, and subsequently after, inflation, the walls the proximal and distal portions of the seal member 20 each include a substantially smooth, uniform inner surface that is devoid of any inwardly extending projections, ledges, or the like.

In contrast, independent claim 33 recites "[a] cannula assembly for use in a surgical procedure" that includes, *inter alia*, a "sealing member having a general hourglass shaped segment, and an annular segment projecting radially inwardly from the hourglass segment," as seen below in FIG. 11. (Emphasis added).



Assuming, *arguendo*, that the characterization of Stablien proffered in the Final Office Action is accurate, and that Stablien is properly combinable with Mollenauer under the MPEP, incorporation of the "fabric" purportedly disclosed in Stablien would fail to cure this deficiency in Mollenauer.

Accordingly, and for at least this reason, *inter alia*, Applicants respectfully submit that the combination of Mollenauer and Stablien fails to suggest the subject matter of independent

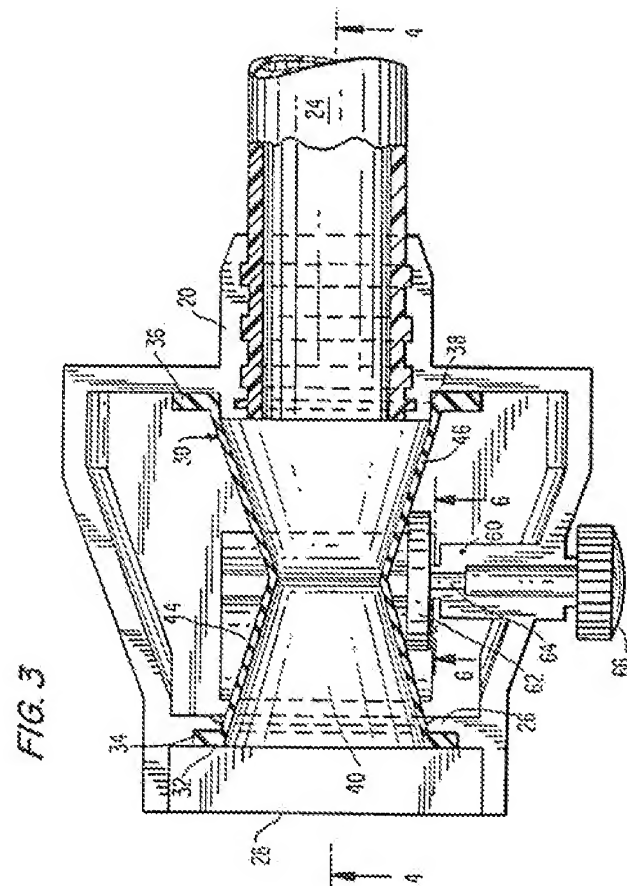
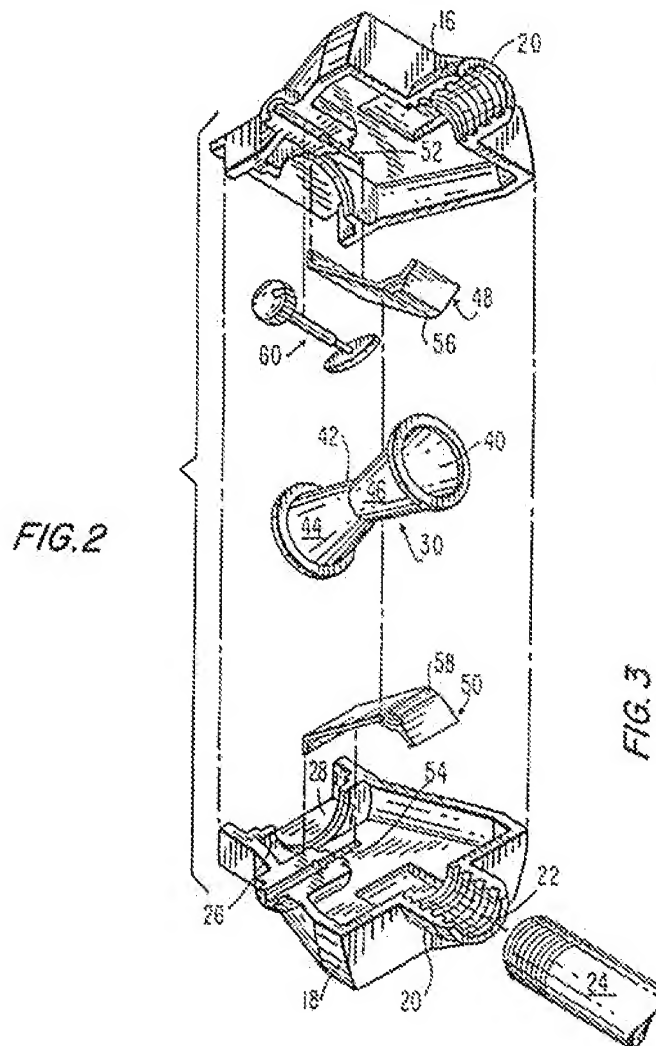
claim 33 as a whole, and therefore, that the combination of Mollenauer and Stablien fails to render the subject matter of independent claim 33 obvious. As such, Applicants respectfully submit that independent claim 33 is allowable over Mollenauer in view of Stablien under 35 U.S.C. §103(a). Since claims 35 and 36 depend directly from independent claim 33, and include each element recited therein, for at least the reasons that independent claim 33 is allowable over Mollenauer in view of Stablien under 35 U.S.C. §103(a), *inter alia*, Applicants respectfully submit that claims 35 and 36 are also allowable over Mollenauer in view of Stablien under 35 U.S.C. §103(a).

Claims 5-9, 20, and 32-36 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,391,154 to Young (hereinafter "Young") in view of Stablein. Applicants respectfully submit, however, that the combination of Young and Stablein fails to render the subject matter of claims 5-9, 20, and 32-36 obvious, as presented herein.

As amended, independent claim 5 recites "[a] cannula assembly for use in a surgical procedure" that includes, *inter alia*, "a housing including discrete proximal and distal housing components configured and dimensioned for releasable connection," a "sealing member having an hourglass shape," and "a seal clamp configured and dimensioned to secure an outer periphery of the sealing member within the housing" wherein the "seal clamp" includes "at least one post extending therefrom along the longitudinal axis, the at least one post being configured and dimensioned to be received within at least one corresponding opening formed in the distal housing component."

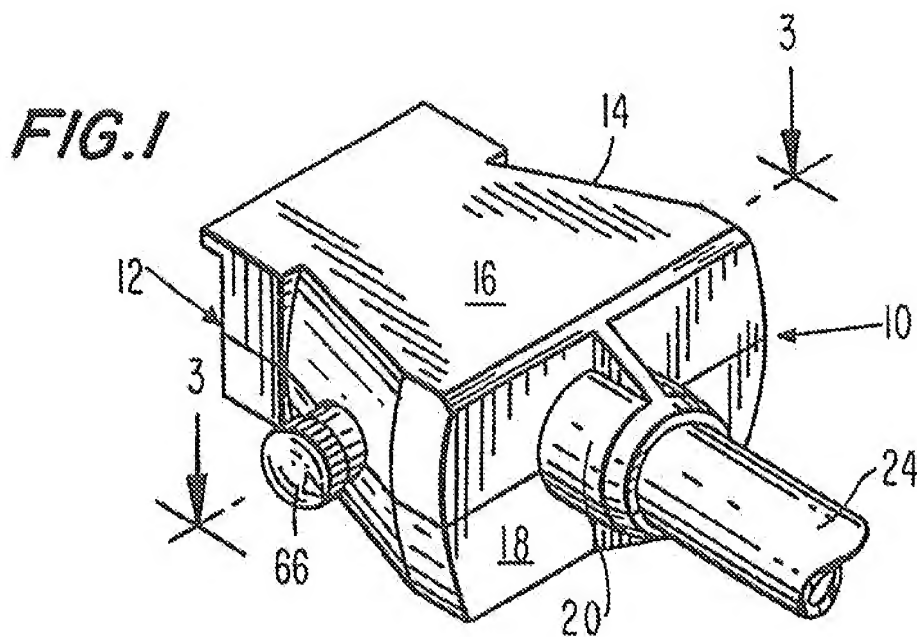
Young relates to "valve systems of the type adapted to allow the introduction of a surgical instrument into a patient's body," and in particular, to "a cannula assembly and the like wherein a cannula extends from a valve assembly and is intended for insertion into a patient's

body and an instrument is inserted into the patient's body through the cannula." (Col. 1, lines 6-12). In one embodiment of the disclosure, Young describes a cannula assembly 10 with a valve assembly 12 that includes a valve housing 14 formed of half sections 16, 18, and a diaphragm 30. (See col. 4, lines 21-46; FIGS. 1-3 below). A pair of opposed resilient levers 48, 50 are positioned about the diaphragm 30, and are connected to interior surfaces of the housing half sections 16, 18. (See col. 5, lines 9-13; FIGS. 2, 3 below). The levers 48, 50 are normally biased towards each other, and engage opposed outer surfaces of the diaphragm 30 to facilitate collapse the diaphragm 30. (See col. 5, lines 22-26; FIGS. 2, 3 below).



In the Final Office Action, Young's diaphragm 30 was characterized as the claimed "sealing member," and the levers 48, 50 were collectively characterized as the claimed "seal clamp." (See Final Office Action, page 6). It was acknowledged that the diaphragm 30 fails to include "a fabric material," as recited in amended independent claim 5 and independent claim 33, but Stablein was relied upon for disclosure of this concept. (See Final Office Action, page 7).

As can be appreciated through reference to FIG. 2 above, and FIG. 1 below, Young's housing half sections 16, 18 are joined along a seam that extends in parallel relation to the longitudinal axis of the cannula assembly 10.



Young's housing half sections 16, 18 are thus positioned in side-by-side relation. Accordingly, Applicants respectfully submit that Young fails to disclose "discrete proximal and distal housing components," as recited in amended independent claim 5.

Additionally, Young states that "[t]he housing half sections 16, 18 are normally attached along the seam by suitable attachment techniques such as adhesive, ultrasonic welding, or the

like.” (Col. 4, lines 33-35) (emphasis added). Each of these techniques facilitates permanent attachment of the half-sections 16, 18, in contrast to the “housing” recited in amended independent claim 5, wherein the “proximal and distal housing components” are “configured and dimensioned for releasable connection.” (Emphasis added).

Moreover, the levers 48, 50 fail to include any portions “extending therefrom along the longitudinal axis” that are “configured and dimensioned to engage at least one corresponding opening formed in the distal housing component,” as recited in amended independent claim 5. (Emphasis added). Rather, the levers 48, 50 include proximal end portions that extend radially outward from the longitudinal axis of the cannula assembly 10.

Accordingly, Applicants respectfully submit that Young fails to disclose a “seal clamp” that includes “at least one post extending therefrom along the longitudinal axis,” as recited in amended independent claim 5.

Furthermore, as can be appreciated through reference to FIG. 3 above, Young’s diaphragm 30 includes proximal and distal tapered portions each including substantially smooth, uniform inner surfaces that are devoid of any inwardly extending projections, ledges, or the like.

In contrast, as highlighted above, independent claim 33 recites “[a] cannula assembly for use in a surgical procedure” that includes, *inter alia*, a “sealing member having a general hourglass shaped segment, and an annular segment projecting radially inwardly from the hourglass segment,” as seen above in FIG. 11. (Emphasis added).

Even if it is assumed, *arguendo*, that the characterization of Stablein proffered in the Office Action is accurate, and that Stablein is properly combinable with Young under the MPEP, incorporation of the fabric purportedly disclosed in Stablein would fail to cure the several deficiencies in Young described above.

Accordingly, and for at least this reason, *inter alia*, Applicants respectfully submit that the combination of Young and Stablien fails to suggest the subject matter of amended independent claim 5 and independent claim 33 as a whole, and therefore, that the combination of Young and Stablien fails to render the subject matter of amended independent claim 5 and independent claim 33 obvious. As such, Applicants respectfully submit that amended independent claim 5 and independent claim 33 are allowable over Young in view of Stablien under 35 U.S.C. §103(a). Since claims 6-9, 20, 32, and 34-36 depend either directly or indirectly from one of either amended independent claim 5 or independent claim 33, and include each element recited therein, for at least the reasons that amended independent claim 5 and independent claim 33 are allowable over Young in view of Stablien under 35 U.S.C. §103(a), *inter alia*, Applicants respectfully submit that claims 6-9, 20, 32, and 34-36 are also allowable over Young in view of Stablien under 35 U.S.C. §103(a).

Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Young in view of Stablein, and further in view of U.S. Patent No. 5,350,364 to Stephens, *et al.* (hereinafter "Stephens"). Applicants respectfully submit, however, that the combination of Young, Stablein, and Stephens fails to render the subject matter of claim 13 obvious.

In the Final Office Action, it was acknowledged that the combination of Young and Stablein fails to disclose "a zero seal," as recited in claim 13, but Stephens was relied upon for disclosure of this concept. (See Final Office Action, page 9).

Even if it is assumed, *arguendo*, that the characterization of Stephens proffered in the Final Office Action is accurate, and that Stephens is properly combinable with Young and

Stablein under the MPEP, incorporating the "zero seal" purportedly disclosed in Stephens would fail to cure the aforescribed deficiencies in the combination of Young and Stablein.

Accordingly, for at least this reason, *inter alia*, Applicants respectfully submit that the combination of Young, Stablein, and Stephens fails to suggest the subject matter of amended independent claim 5 as a whole, and therefore, that the combination of Young, Stablein, and Stephens fails to render the subject matter of amended independent claim 5 obvious. As such, Applicants respectfully submit that amended independent claim 5 is allowable over Young in view of Stablein and Stephens under 35 U.S.C. §103(a). Since claim 13 depends directly from amended independent claim 5, and includes each element recited therein, for at least the reasons that amended independent claim 5 is allowable over Young in view of Stablein and Stephens under 35 U.S.C. §103(a), *inter alia*, Applicants respectfully submit that claim 13 is also allowable over Young in view of Stablein and Stephens under 35 U.S.C. §103(a).

Claims 11 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Young in view of Stablein, and further in view of U.S. Patent No. 5,463,010 to Hu, *et al.* (hereinafter "Hu"). Applicants respectfully submit, however, that the combination of Young, Stablein, and Hu fails to render the subject matter of claims 11 and 17 obvious.

In the Final Office Action, it was acknowledged that the combination of Young and Stablein fails to disclose a "sealing member" including the features of the "coating" recited in claims 11 and 17, but Hu was relied upon for disclosure of this concept. (*See* Final Office Action, page 9).

Even if it is assumed, *arguendo*, that the characterization of Hu proffered in the Final Office Action is accurate, and that Hu is properly combinable with Young and Stablein under the MPEP, incorporating the “coating” purportedly disclosed in Hu would fail to cure the afordescribed deficiencies in the combination of Young and Stablein.

Accordingly, for at least this reason, *inter alia*, Applicants respectfully submit that the combination of Young, Stablein, and Hu fails to suggest the subject matter of amended independent claim 5 as a whole, and therefore, that the combination of Young, Stablein, and Hu fails to render the subject matter of amended independent claim 5 obvious. As such, Applicants respectfully submit that amended independent claim 5 is allowable over Young in view of Stablein and Hu under 35 U.S.C. §103(a). Since claims 11 and 17 depend directly and indirectly from amended independent claim 5, respectively, and include each element recited therein, for at least the reasons that amended independent claim 5 is allowable over Young in view of Stablein and Hu under 35 U.S.C. §103(a), *inter alia*, Applicants respectfully submit that claims 11 and 17 are also allowable over Young in view of Stablein and Hu under 35 U.S.C. §103(a).

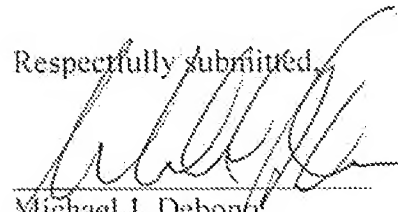
As mentioned above, Applicants have added new claims 37-41 for consideration herein. Applicants respectfully submit that these claims recite a unique combination of features that is neither taught, nor suggested, by the references of record. For example, since new claims 37-41 each depend directly or indirectly from either amended independent claim 5 or independent claim 33, which Applicants respectfully submit are allowable in accordance with the preceding discussion, and include each element recited therein, for at least the reasons that amended independent claim 5 and independent claim 33 are allowable, *inter alia*, Applicants respectfully submit that new claims 37-41 are also allowable.

In view of the foregoing remarks and arguments, Applicants respectfully submit that each of pending claims 5-9, 11, 13, 17, 20, and 32-41 is allowable over the references of record, and accordingly, respectfully request allowance of these claims.

Should the Examiner feel that an interview may facilitate the resolution of any outstanding matters, the Examiner is sincerely invited to contact Applicants' undersigned attorney at the number indicated below.

Please charge any deficiency, as well as any other fee(s) which may become due under 37 C.F.R. §1.16 and/or 1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s), to Deposit Account No. 21-0550. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required, and charge Deposit Account No. 21-0550 therefor.

Respectfully submitted,


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